Young Systematists' Forum

VIRTUAL CONFERENCE

Sponsors

Organisers: Ellinor Michel (Natural History Museum London), Katie Collins (Natural History Museum London), Pablo Muñoz-Rodríguez (University of Oxford), Ana Serra Silva (Natural History Museum London),
Kálmán Könyves (Royal Horticultural Society) and Peter Mulhair (University of Oxford) with the support of
The Systematics Association Council.

Molecular phylogenetic origin and conservation of Argyrodines, cobweb spiders (Araneae: Theridiidae) of Sri Lanka

Tharmarajan. M, Benjamin S.P*

National Institute of Fundamental Studies, Kandy, Sri Lanka

*Corresponding author: suresh.benjamin@gmail.com

Sri Lanka is known to harbour numerous endemic spider lineages. Members of the family Theridiidae are commonly known as comb-footed spiders. Subfamily Argyroidinae consists of six genera *Argyrodes, Ariamnes, Faditus, Neospintharus*, *Rhomphaea* and *Spheropistha*. These six taxa are highly distinct, differing considerably in morphology and behaviour. We constructed multilocus molecular phylogeny of these new taxa with other Asian and American species. Sampling was done all around the country. Species distribution was mapped. Collected specimens were cataloged and preserved 100% ethanol. PCR was done with previously successfully tested primers of three genes: 16S, COI and 28S. Maximum Likelihood and Bayesian topologies agree on the fundamental classification of subfamily Argyrodinae and supported the monophyly of *Rhomphaea* and *Ariamnes* with polyphyletic *Neospintharus* and *Argyrodes*. Recording the genera of four new species of *Rhomphaea* and two new species of *Neospintharus* first time in Sri Lanka, 5 species of *Argyrodes* including a new species redescribed and recorded after a century.